

Izrada aplikacija za mobilne uređaje

GUI



Teme

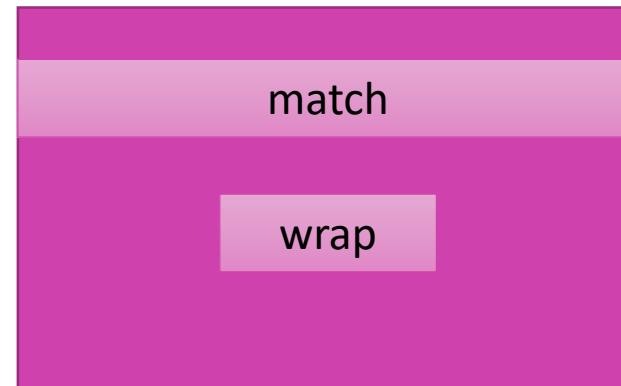
- View
- ViewGroup
- Layouts
- Preporuke
- ListView

View

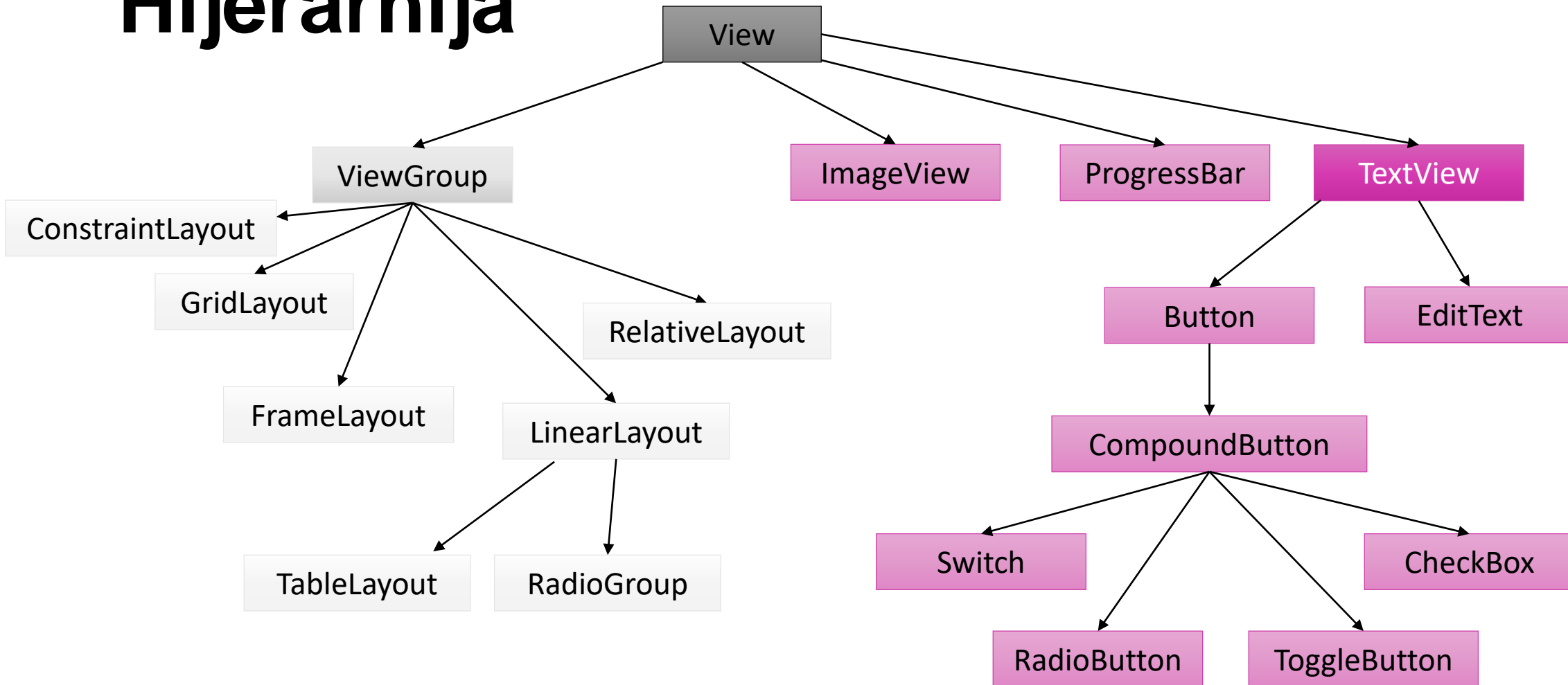
- Osnovna gradivna jedinica korisničkog sučelja
 - **Sve kontrole** nasljeđuju View
 - Pravokutni oblik
 - Iscrtavanje (izgled) i obrada događaja
- *Zanimljivi* atributi
 - id, background, alpha, visibility
 - minWidth, minHeight, padding[Left,Right,Top,Bottom]
 - rotation[XY], scale[XY], translation[XY]

ViewGroup

- Nasljeđuje klasu View
- Nemaju izgled
- Omogućuju grupiranje i slaganje kontrola
 - Layout
- Definira klasu LayoutParams
 - match_parent
 - wrap_content



Hijerarhija

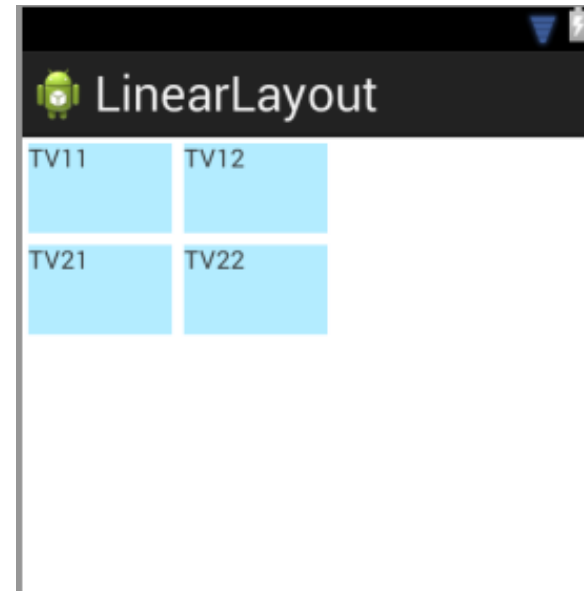


LinearLayout

- Kontrole se stavljaju jedna iza/ispod druge
 - orientation: vertical / horizontal

```
<LinearLayout
    android:orientation="vertical">
    <LinearLayout
        android:orientation="horizontal">
        <TextView android:text="TV11" />
        <TextView android:text="TV12" />
    </LinearLayout>

    <LinearLayout
        android:orientation="horizontal">
        <TextView android:text="TV21" />
        <TextView android:text="TV22" />
    </LinearLayout>
</LinearLayout>
```



RelativeLayout

- Kontrole se stavljaju relativno jedna u odnosu na drugu
 - layout_toRightOf, layout_below, layout_alignParentLeft...

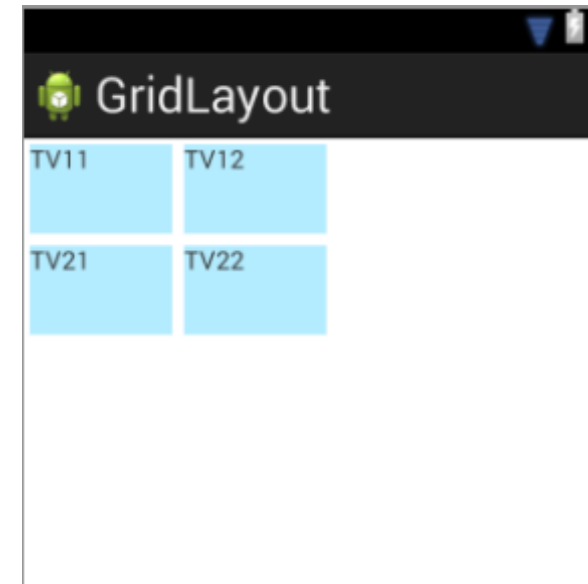
```
<RelativeLayout>
  <TextView id="@+id/tv11" text="TV11"
    layout_alignParentLeft="true"
    layout_alignParentTop="true"/>
  <TextView id="@+id/tv12" text="TV12"
    layout_toRightOf="@+id/tv11"/>
  <TextView id="@+id/tv21" text="TV21"
    layout_alignParentLeft="true"
    layout_below="@+id/tv12"/>
  <TextView text="TV22"
    layout_alignBaseline="@+id/tv21"
    layout_alignBottom="@+id/tv21"
    layout_alignLeft="@+id/tv12"/>
</RelativeLayout>
```



GridLayout

- Kontrole se stavljaju u tablicu
 - layout_row, layout_column, layout_rowSpan, layout_columnSpan

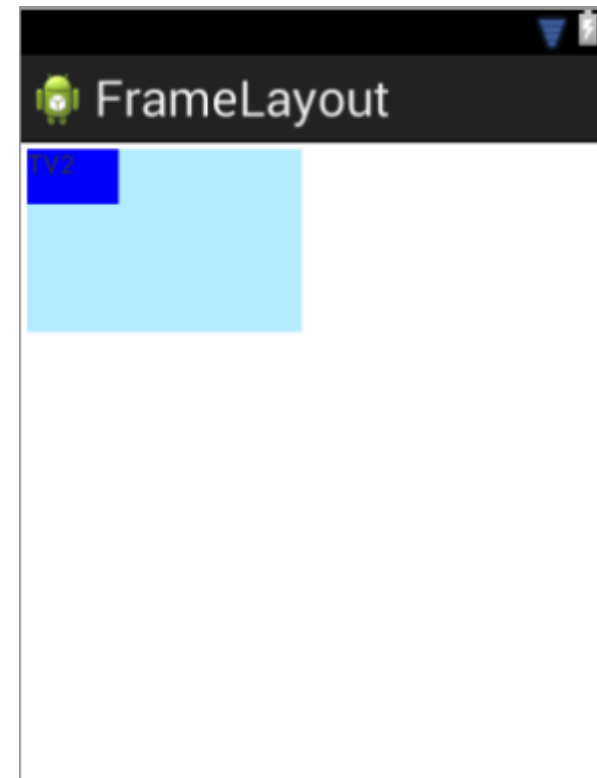
```
<GridLayout>
    <TextView android:text="TV11"
        android:layout_row="0"
        android:layout_column="0"/>
    <TextView android:text="TV12"
        android:layout_row="0"
        android:layout_column="1"/>
    <TextView android:text="TV21"
        android:layout_row="1"
        android:layout_column="0"/>
    <TextView android:text="TV22"
        android:layout_row="1"
        android:layout_column="1"/>
</GridLayout>
```



FrameLayout

- Kontrole se slažu jedna iznad druge
 - Uglavnom sadrži jednu kontrolu

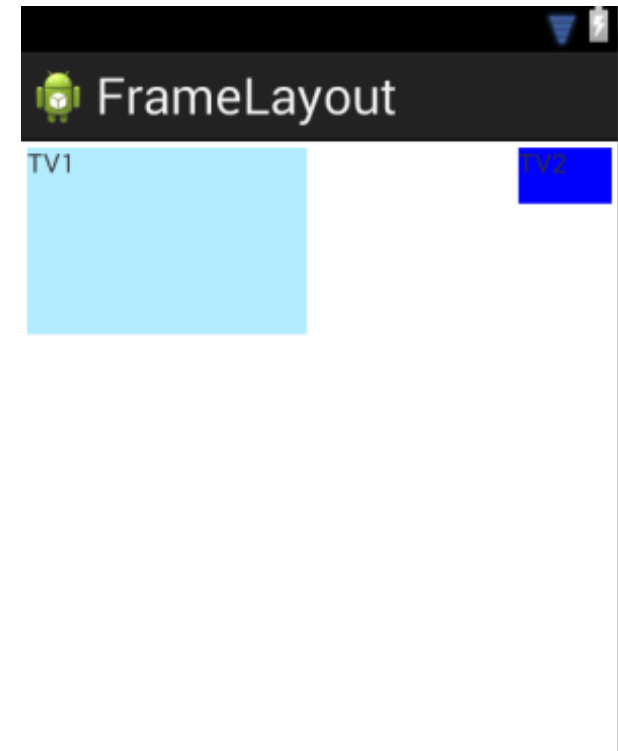
```
<FrameLayout>
    <TextView android:text="TV1"
        android:background="#B3ECFF"/>
    <TextView android:text="TV2"
        android:background="#0000FF"/>
</FrameLayout>
```



Gravity

- Definira pozicioniranje kontrole unutar roditelja
- android:layout_gravity
 - top, bottom, left, right
 - center, center_vertical, center_horizontal
 - fill, fill_vertical, fill_horizontal

```
<FrameLayout>
  <TextView android:text="TV1"
    android:background="#B3ECFF"/>
  <TextView android:text="TV2"
    android:background="#0000FF"
    android:layout_gravity="right"/>
</FrameLayout>
```

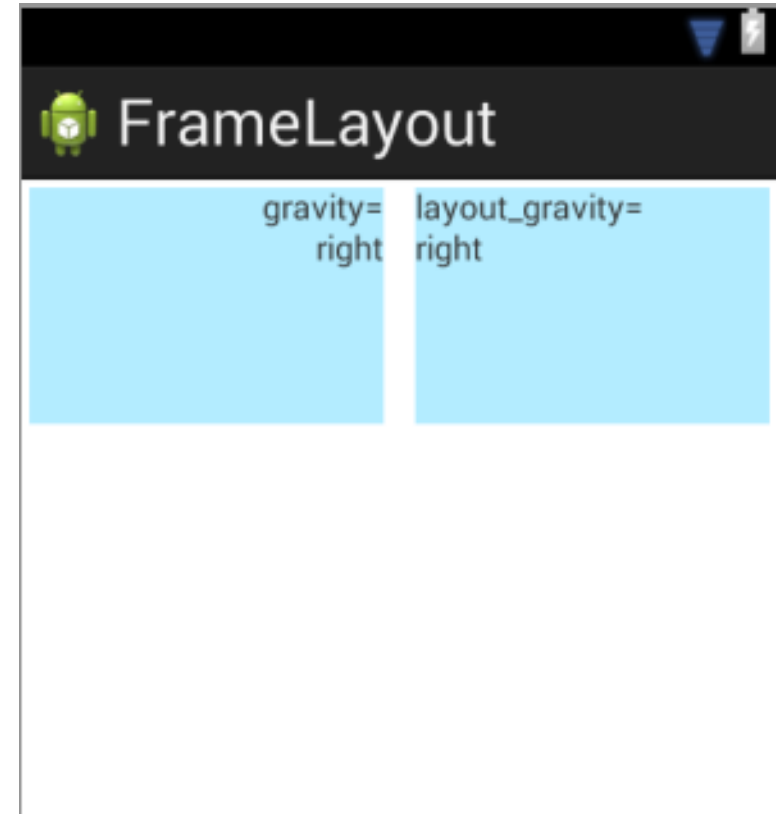


layout_gravity vs gravity

- layout_gravity definira položaj unutar roditelja
- gravity definira položaj sadržaja kontrole

```
<FrameLayout>
  <TextView
    android:gravity="right"
    android:text="gravity=\nrigh" />

  <TextView
    android:layout_gravity="right"
    android:text="layout_gravity=\nrigh" />
</FrameLayout>
```

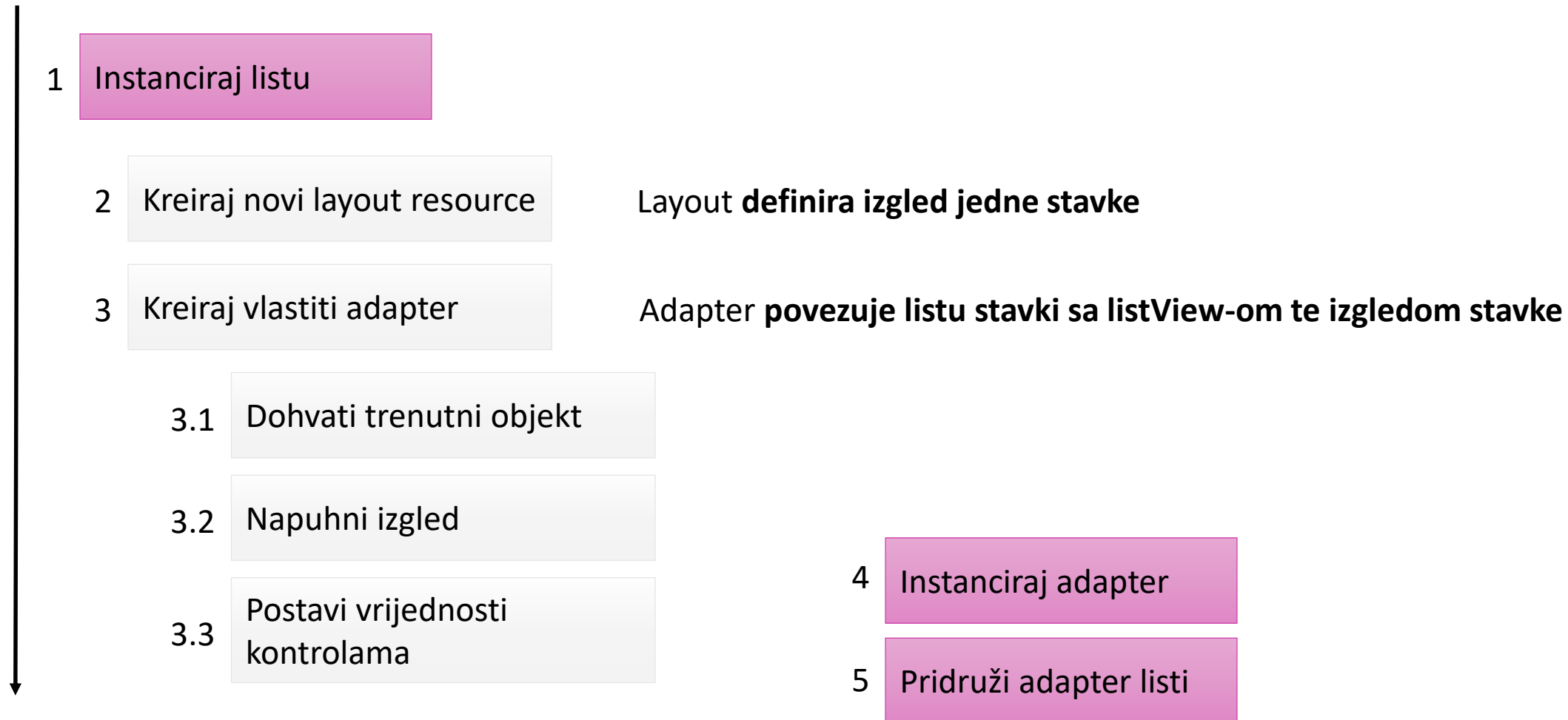


Preporuke

- Ograničiti ugnježdjivanje
 - Maksimalno 10 razina
- Ograničiti broj kontrola
 - Maksimalno 80
- Izbjegavati
 - Apsolutno pozicioniranje
 - px (pixel)
 - mali font
- Ukloniti nepotrebne layoute

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">
        <TextView .../>
        <TextView .../>
    </LinearLayout>
</LinearLayout>
```

ListView - Vlastiti izgled (layout i adapter)



Demo

- ListView app



<http://www.jnhsolutions.com/contact-us/request-a-demo/>

Hvala na pažnji!

